

## STATEMENT OF CONSIDERATIONS

REQUEST BY UNITED SOLAR SYSTEMS CORPORATION FOR AN  
ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS  
UNDER NREL SUBCONTRACT NO: ZAF-5-14142-01 UNDER DOE  
CONTRACT NO: DE-AC36-83CH10093; W(A)-95-004; CH-0848

The Petitioner, United Solar Systems Corporation, has requested a waiver of domestic and foreign patent rights for all subject inventions arising from the above referenced subcontract entitled "Thin Film Amorphous Silicon Alloy Research Partnership."

The scope of work to be performed under this subcontract is to develop high performance two-terminal multibandgap, multijunction amorphous silicon alloy modules with low manufacturing cost and high reliability. The principle objectives are to conduct research on materials which enhance performance of thin film amorphous silicon alloy modules, to improve module reliability by qualifying the integrity of the metal/dielectric/semiconductor adhesion, and to reduce manufacturing costs by using processes which are compatible with automation, improve yields, and use cheaper source materials.

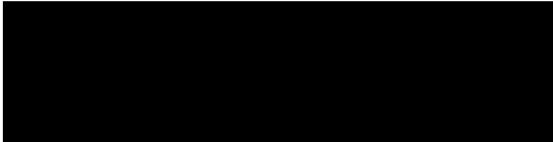
The total anticipated cost of the subcontract is \$4 million, with the Petitioner's share being \$2 million, for approximately 50% cost sharing. The continuation of the waiver is contingent upon the Petitioner maintaining, in aggregate, the above cost sharing percentage over the course of the subcontract.


As noted in its waiver petition, Petitioner has an established non-governmental commercial position in the above technology, with sales of approximately \$5.2 million since July 1990 in photovoltaic products, including about \$170K to the U.S. Government. In addition, Petitioner, along with one of its parent companies, has invested over \$170 million in the research and development of photovoltaic materials, process and machinery which will be utilized in the performance of work under the present subcontract. Currently, Petitioner owns over 140 patents related to the above technology and holds several records in photovoltaic cell efficiency. Considering Petitioner's technical expertise, established market position, and significant investment in this technology including sizable cost sharing in this subcontract, it is reasonable to conclude that Petitioner will continue to develop and ultimately commercialize the products which may arise from this subcontract.

Petitioner has agreed that this waiver shall be subject to the march-in and preference for U.S. industry provisions, as well as the U.S. Government license, comparable to those set out in 35 U.S.C. 202-204. Further, Petitioner has agreed to a U.S. competitiveness provisions as attached to this Statement. In brief, Petitioner has agreed that products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States for a period of five (5) years from the expiration of this subcontract, unless Petitioner can show to the satisfaction of DOE that it is not commercially feasible to do so. Further, Petitioner has agreed that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements.

Referring to item 9 of the waiver petition, granting this waiver is not anticipated to have any adverse impact on competition. There are currently numerous designs, as well as competitors, in the field of amorphous silicon photovoltaics. The success of this subcontract can be expected to stimulate investment, not only in this technology, but also in other competing technologies as well.

Considering the foregoing, it is believed that granting this waiver will provide Petitioner with the necessary incentive to invest its resources in the commercialization of the results of the subcontract in a fashion which will make the above technology available to the public in the shortest practicable time. Therefore, upon evaluation of the waiver petition and in view of the objectives and considerations set forth in 10 CFR 784, all of which have been considered, it is recommended that the requested waiver be granted.

  
Thomas G. Anderson  
Assistant Chief Counsel  
Intellectual Property Law Division


  
Daniel D. Park  
Patent Attorney  
Intellectual Property Law Division

Date: 3/4/97

Date: 3/4/97

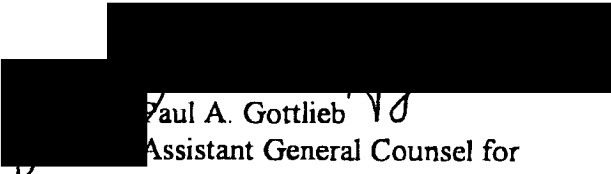
Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope described above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of the subcontract, where through such modification or extension, the purpose, scope or cost of the subcontract has been substantially altered.

CONCURRENCE 

  
James E. Rannels, Director  
Office of Photovoltaic and  
Wind Technologies

Date: 8/29/97

APPROVAL:

  
Paul A. Gottlieb  
Assistant General Counsel for  
Technology Transfer and  
Intellectual Property

Date: 9/10/97

(ix) U.S. COMPETITIVENESS

The Subcontractor (waiver recipient) agrees that in the event it elects to commercially manufacture any product embodying any waived invention hereunder, or produce any product through the use of any waived invention hereunder, such product will be manufactured substantially in the United States for a period of five (5) years after the expiration date of this contract, unless the subcontractor can demonstrate to DOE, under the standard of commercial reasonableness, that it is not commercially feasible to do so. In addition, the Subcontractor agrees that it will not license or assign any waived invention to any entity unless that entity agrees to these same requirements. However, if during the foregoing five (5) year period, the Subcontractor has met and is continuing to meet the above United States manufacturing requirements, the Subcontractor may nonexclusively license waived inventions for manufacture and sales of the above products and processes outside of the United States.

In the event the Subcontractor or assignee transfers title in any subject invention or patent or patent application based thereon to, or Subcontractor or any assignee becomes, a company or an entity which is majority owned by a non U.S. company or entity, then Subcontractor or assignee as the case may be, at DOE's request, shall grant nonexclusive sublicenses under such subject invention, patent and/or patent application to U.S. owned or controlled companies identified to Subcontractor or assignee by DOE, under fair and reasonable terms, with one-half of the consideration of such sublicenses inuring to Subcontractor or its assignee and one-half inuring to the Government.

***WAIVER ACTION - ABSTRACT***

***W(A)-95-004***

**REQUESTOR**

United Solar Systems Corp.

**SUBCONTRACT SCOPE OF  
WORK**

Development of amorphous  
silicon photovoltaic cells

**RATIONALE FOR DECISION**

50% cost sharing

**DISPOSITION**

Recommended